

To: The Honorable Mayor and Council Members

From: Shannon Graham, Purchasing Manager

Date: September 2, 2015

RE: **A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF NORTH MIAMI, FLORIDA, APPROVING THE CITY ADMINISTRATION'S COMPETITIVE SELECTION OF INSITUFORM TECHNOLOGIES, LLC, AS A LOWEST-RESPONSIBLE CONTRACTOR TO FURNISH MATERIALS, EQUIPMENT, TOOLS, MACHINERY, SUPERVISION, EXPERTISE, AND SERVICES REQUIRED FOR THE INSTALLATION AND REHABILITATION OF SANITARY SEWER LINING AT LOCATIONS DESIGNATED BY THE CITY MANAGER; AND FURTHER AUTHORIZING THE CITY MANAGER TO NEGOTIATE AND EXECUTE AN AGREEMENT FOR STATED PROJECT SERVICES, FOR AN APPROXIMATE AMOUNT OF ONE MILLION DOLLARS (\$1,000,000.00) DURING THE FIRST INITIAL TERM OF ONE (1) YEAR, IN ACCORDANCE WITH THE TERMS, CONDITIONS AND SPECIFICATIONS CONTAINED IN THE SANITARY SEWER LINING & REHABILITATION IFB NO. 25-04-15; PROVIDING FOR AN EFFECTIVE DATE AND FOR ALL OTHER PURPOSES.**

---

### **RECOMMENDATION**

Staff is requesting that the Mayor and Council authorize the City Manager to execute a contract for Sanitary Sewer Lining & Rehabilitation with Insituform Technologies, LLC and Ric-Man Construction Florida, Inc. **in order to expedite the project to meet the Grant deadline dates.** The award shall be split equally between the two bidders in the approximate amount of Two Million dollars (\$2,000,000); One Million for each Contractor, for the initial term of one year with the option of two one year renewals. This will provide for the project to be completed quickly and economically and provide for any additional work that may be needed in the future.

## **SCOPE**

This project entails cured-in-place lining of sanitary sewer mains and laterals, sanitary sewer main and lateral replacement, chemical grouting, manhole repairs by lining and manhole replacements, and performing point repairs to the City of North Miami's (City's) sewer system. The installation and rehabilitation of the sanitary sewer system decreases the amount of inflow/infiltration pumped in the City's sanitary sewer system, therefore, providing better service to our community and saving on the costs associated with collecting and transmitting wastewater. The repairs to our sanitary sewer system are also required for the City to remain in compliance with the rules and regulations of the regulatory agencies.

On May 5, 2015, the City advertised Invitation For Bid ("IFB") No. 25-04-15 Sanitary Sewer Lining & Rehabilitation to obtain the labor, supervision, materials, equipment, tools, machinery, expertise, and other services necessary to engineer, procure, construct, deliver, erect, commission, test and have permitted an installation and rehabilitation of the City's sanitary sewer system, in accordance with the terms, conditions, and specifications contained in the Solicitation.

## **BACKGROUND**

1. The City advertised Invitation For Bid 25-04-15 on 5/5/2015.
2. Subject bid opened on 6/11/2015. The City received two bids; Insituform Technologies, LLC (Insituform) and Ric-Man Construction Florida, Inc. (Ric-Man).
3. Both bids are deemed responsible and responsive.
4. Insituform and Ric-Man have provided all requisite documents:
  - a) Public Entity Crimes Affidavit
  - b) Non-Collusive Proposal Certificate
  - c) Acknowledgement of Addenda
  - d) References
  - e) State of Florida active Sunbiz report
  - f) Sample certificate of insurance is provided and approved by Risk Management.

## **FUNDING SOURCE**

Funding for this item is through the Water and Sewer Utility Funds and will be reimbursed through two Grants; GOB funds and FDEP Agreement No. LP13180.

## **ATTACHMENT(S)**

Bid Submittal, Bid Tabulation, Sewer Service Map, Table 7-1: Non-Compliant Basins



RESOLUTION NO. \_\_\_\_\_

**A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF NORTH MIAMI, FLORIDA, APPROVING THE CITY ADMINISTRATION'S COMPETITIVE SELECTION OF INSITUFORM TECHNOLOGIES, LLC, AS A LOWEST-RESPONSIBLE CONTRACTOR TO FURNISH MATERIALS, EQUIPMENT, TOOLS, MACHINERY, SUPERVISION, EXPERTISE, AND SERVICES REQUIRED FOR THE INSTALLATION AND REHABILITATION OF SANITARY SEWER LINING AT LOCATIONS DESIGNATED BY THE CITY MANAGER; AND FURTHER AUTHORIZING THE CITY MANAGER TO NEGOTIATE AND EXECUTE AN AGREEMENT FOR STATED PROJECT SERVICES, FOR AN APPROXIMATE AMOUNT OF ONE MILLION DOLLARS (\$1,000,000.00) DURING THE FIRST INITIAL TERM OF ONE (1) YEAR, IN ACCORDANCE WITH THE TERMS, CONDITIONS AND SPECIFICATIONS CONTAINED IN THE SANITARY SEWER LINING & REHABILITATION IFB NO. 25-04-15; PROVIDING FOR AN EFFECTIVE DATE AND FOR ALL OTHER PURPOSES.**

**WHEREAS**, in May 5, 2015, the City of North Miami ("City") advertised *Invitation for Bid Sanitary Sewer Lining & Rehabilitation IFB No. 25-04-15* ("IFB"), seeking competitive sealed bids from qualified licensed contractors to furnish all labor, materials, equipment, tools, machinery, supervision, expertise and services required in performing sanitary sewer repairs and installation including, but not limited to, cured in-place lining and sectional lining, cured in-place lateral lining, chemical grouting, seal joints, tests, mechanical removal, root removal, pipe replacement, excavated point repairs, exploratory excavation, full pipe replacement, full lateral replacement, manhole repairs, replacement and restoration, bypass pumping, and traffic control (collectively referred hereto as "Services"); and

**WHEREAS**, in response to the IFB, Insituform Technologies, LLC ("Contractor") submitted its bid and was competitively selected by City administration as a responsive-responsible low bidder, with qualifications and references demonstrating to be the most advantageous to the City in the provision of Services; and

**WHEREAS**, the Contractor manifested the capability and willingness of providing Services to the City for approximately One Million Dollars (\$1,000,000.00) during the first initial term of one (1) year, in accordance with the terms, conditions and specifications contained in the IFB; and

**WHEREAS**, City administration respectfully requests that the Mayor and City Council approve the selection of Contractor and further authorize an agreement for the completion of Services; and

**WHEREAS**, the Mayor and City Council find the selection of Contractor to be in the best interest of the City, and that the provision of Services are designed to protect the public health, safety, and welfare.

**NOW THEREFORE, BE IT DULY RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF NORTH MIAMI, FLORIDA:**

**Section 1.**      **Selection Approval.** The Mayor and City Council of the City of North Miami, Florida, hereby approve the City Administration's competitive selection of Insituform Technologies, LLC, as a lowest-responsible contractor to furnish materials, equipment, tools, machinery, supervision, expertise, and services required for the installation and rehabilitation of sanitary sewer lining at locations designated by the City Manager.

**Section 2.**      **Authority of City Manager.** The Mayor and City Council of the City of North Miami, Florida, hereby authorize the City Manager to negotiate and execute an agreement to complete the project services, for an approximate amount of One Million Dollars (\$1,000,000.00) during the first initial term of one (1) year, in accordance with the terms, conditions and specifications contained in the *Sanitary Sewer Lining & Rehabilitation IFB No. 25-04-15*.

**Section 3.**      **Effective Date.** This Resolution shall become effective immediately upon adoption.

**PASSED AND ADOPTED** by a \_\_\_\_\_ vote of the Mayor and City Council of the City of North Miami, Florida, this \_\_\_\_ day of \_\_\_\_\_, 2015.

\_\_\_\_\_  
DR. SMITH JOSEPH  
MAYOR

ATTEST:

\_\_\_\_\_  
MICHAEL A. ETIENNE, ESQ.  
CITY CLERK

APPROVED AS TO FORM  
AND LEGAL SUFFICIENCY:

\_\_\_\_\_  
ROLAND C. GALDOS, ESQ.  
INTERIM CITY ATTORNEY

SPONSORED BY: CITY ADMINISTRATION

Moved by: \_\_\_\_\_

Seconded by: \_\_\_\_\_

**Vote:**

Mayor Smith Joseph, D.O., Pharm. D.  
Vice Mayor Carol Keys, Esq.  
Councilman Scott Galvin  
Councilman Philippe Bien-Aime  
Councilman Alix Desulme

_____	(Yes)	_____	(No)
_____	(Yes)	_____	(No)
_____	(Yes)	_____	(No)
_____	(Yes)	_____	(No)
_____	(Yes)	_____	(No)



**Table 7-1 Non-Compliant Basins Projected Rehabilitation Cost**

Basin	Sanitary Sewer Length (lf) <sup>3</sup>	Non-Rehabilitated Sewer Length (lf) <sup>2</sup>	Lining Cost for Unlined Sewers (\$/lf) <sup>1</sup>	Sanitary Sewer Rehabilitation Cost
E	48,049	40,689	\$60	\$2,441,340
I	6,750	1,869	\$60	\$112,140
Bellows	4,918	2,014	\$60	\$120,840
Woods	11,168	10,694	\$60	\$641,640
Quayside	5,397	5,354	\$60	\$321,240
KP-1	1,840	1,072	\$60	\$64,320
Rodan	1,051	528	\$60	\$31,680
FIU-West <sup>4</sup>	7,830	5,175	\$60	\$310,500
Noel	903	903	\$60	\$54,180
Futura	4,417	4,417	\$60	\$265,020
Arch Creek Plaza	876	876	\$60	\$52,560
Total Projected Sanitary Sewer Rehabilitation Cost (Rounded to the nearest \$1,000) <sup>4</sup>				\$4,105,000

Source:

1. Lining cost covers cleaning, CCTV inspection (pre-rehabilitation and post), lateral connection grouting, engineering, traffic control, mobilization, contractors overhead and profit.
2. Non rehabilitation sewer lines identified from length of sewer rehabilitation identified in City's Sanitary Sewer GIS.
3. Linear footage based off City's GIS
4. City is no longer responsible for the operation and maintenance of Pump Station FIU-West and its collection system. Therefore, the total cost does not include the estimate for this basin.

### 7.3. Phase III Project Schedule

To complete the steps necessary to bid, execute and perform the rehabilitation and re-measurement work related to Phase III, CDM Smith has prepared a proposed project schedule to meet the regulatory deadline in November 2016 (**Figure 7-2**). This schedule includes time allotted for the bidding and procurement of two separate projects: CCTV (Inspection, Evaluation and Recommendation) Project and the Rehabilitation Project. Construction is expected to last approximately a year and a half. Both durations includes time for unexpected occurrences and delays.

### 7.4. Other Considerations

The results of this study provide an estimate of the current infiltration conditions through the City's sanitary sewer system. Listed below are additional items for consideration to improve the effectiveness of the City's SSES Program.

- The City should consider evaluating additional means to record flow in the basins where theoretical information was required or recorded data was inconsistent.
- As part of additional investigations, the City should require that all construction projects perform pre- and post-construction CCTV inspections of the sanitary sewers within the limits of the project and require repair in the event of damages.



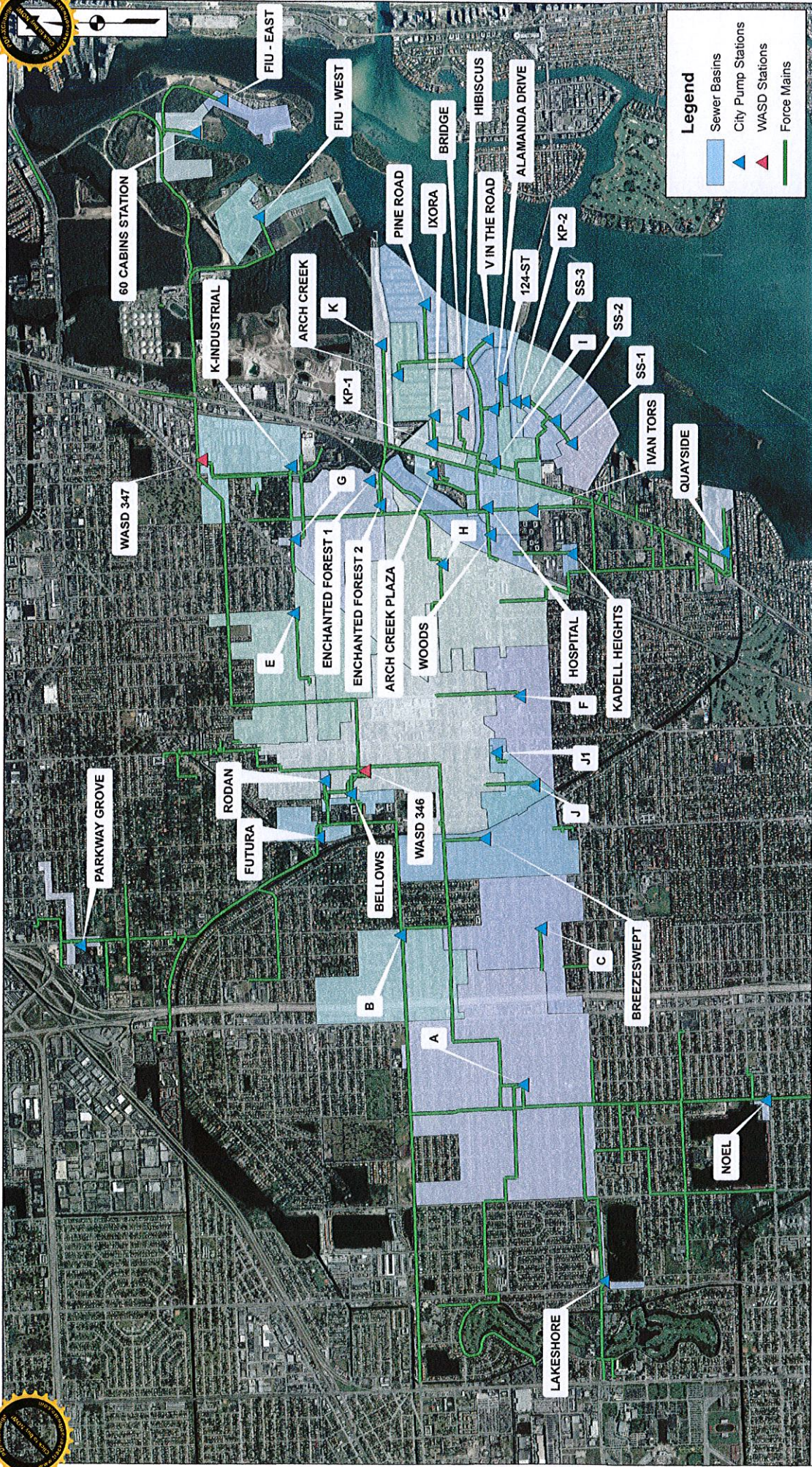


Figure 2-1

# City of North Miami Service Area



Source: City of North Miami, FDOT





Contract #: IFB 25-04-15  
 Contract Title: Sanitary Sewer Lining & Rehabilitation  
 Bid Opening Date: June 11, 2015  
 Prepared By: Melissa Borgen  
 Reviewed By: Shannon Graham

Item #	Qty	Unit	Description	Ric-Man Construction Florida, Inc. 3100 SW 15 St Deerfield Beach, FL 33442		Instituform Technologies, Inc. 17988 Edison Avenue Chesterfield, MO 63005	
				Unit Price	Total Price	Unit Price	Total Price
PIPE LINING							
Cured-in-Place Pipe Lining							
1	20000	LF	Install cured-in-place liner 8-inch diameter gravity mains (up to 8 feet in depth)	\$ 30.00	\$ 600,000.00	\$ 25.70	\$ 514,000.00
2	20000	LF	Install cured-in-place liner 8-inch diameter gravity mains (8 to 12 feet in depth)	\$ 30.00	\$ 600,000.00	\$ 25.70	\$ 514,000.00
3	5000	LF	Install cured-in-place liner 8-inch diameter gravity mains (12 to 16 feet in depth)	\$ 30.00	\$ 150,000.00	\$ 25.70	\$ 128,500.00
4	1000	LF	Install cured-in-place liner 10-inch diameter gravity mains (up to 8 feet in depth)	\$ 36.00	\$ 36,000.00	\$ 29.80	\$ 29,800.00
5	1000	LF	Install cured-in-place liner 10-inch diameter gravity mains (8 to 12 feet in depth)	\$ 36.00	\$ 36,000.00	\$ 29.90	\$ 29,900.00
6	1000	LF	Install cured-in-place liner 10-inch diameter gravity mains (12 to 16 feet in depth)	\$ 36.00	\$ 36,000.00	\$ 38.20	\$ 38,200.00
7	300	LF	Install cured-in-place liner 12-inch diameter gravity mains (up to 8 feet in depth)	\$ 40.00	\$ 12,000.00	\$ 35.50	\$ 10,650.00
8	500	LF	Install cured-in-place liner 12-inch diameter gravity mains (8 to 12 feet in depth)	\$ 40.00	\$ 20,000.00	\$ 42.00	\$ 21,000.00
9	500	LF	Install cured-in-place liner 12-inch diameter gravity mains (12 to 16 feet in depth)	\$ 40.00	\$ 20,000.00	\$ 44.90	\$ 22,450.00
10	250	LF	Install cured-in-place liner 15-inch diameter gravity mains (8 to 12 feet in depth)	\$ 50.00	\$ 12,500.00	\$ 51.70	\$ 12,925.00
11	250	LF	Install cured-in-place liner 15-inch diameter gravity mains (12 to 16 feet in depth)	\$ 50.00	\$ 12,500.00	\$ 54.80	\$ 13,700.00
12	100	LF	Install cured-in-place liner 18-inch diameter gravity mains (8 to 12 feet in depth)	\$ 68.00	\$ 6,800.00	\$ 64.40	\$ 6,440.00
13	100	LF	Install cured-in-place liner 18-inch diameter gravity mains (12 to 16 feet in depth)	\$ 68.00	\$ 6,800.00	\$ 72.90	\$ 7,290.00
14	450	LF	Install cured-in-place liner 21-inch diameter gravity mains (8 to 12 feet in depth)	\$ 82.00	\$ 36,900.00	\$ 82.90	\$ 37,305.00



Item #	Qty	Unit	Description	Ric-Man Construction Florida, Inc. 3100 SW 15 St Deerfield Beach, FL 33442		Instituform Technologies, Inc. 17988 Edison Avenue Chesterfield, MO 63005	
				Unit Price	Total Price	Unit Price	Total Price
15	300	LF	Install cured-in-place liner 21-inch diameter gravity mains (12 to 16 feet in depth)	\$ 82.00	\$ 24,600.00	\$ 88.50	\$ 26,550.00
16	100	LF	Install cured-in-place liner 24-inch diameter gravity mains (8 to 12 feet in depth)	\$ 90.00	\$ 9,000.00	\$ 99.90	\$ 9,990.00
17	100	LF	Install cured-in-place liner 24-inch diameter gravity mains (12 to 16 feet in depth)	\$ 90.00	\$ 9,000.00	\$ 105.50	\$ 10,550.00
18	100	LF	Install cured-in-place liner 30-inch diameter gravity mains (8 to 12 feet in depth)	\$ 130.00	\$ 13,000.00	\$ 134.60	\$ 13,460.00
19	200	LF	Install cured-in-place liner 30-inch diameter gravity mains (12 to 16 feet in depth)	\$ 130.00	\$ 26,000.00	\$ 141.60	\$ 28,320.00
20	450	LF	Install cured-in-place liner 36-inch diameter gravity mains (8 to 12 feet in depth)	\$ 165.00	\$ 74,250.00	\$ 186.20	\$ 83,790.00
21	300	LF	Install cured-in-place liner 36-inch diameter gravity mains (12 to 16 feet in depth)	\$ 165.00	\$ 49,500.00	\$ 202.80	\$ 60,840.00
22	10	EA	Work in rear-yard easement (items 1 through 22)	\$ 400.00	\$ 4,000.00	\$ 1,355.00	\$ 13,550.00
<b>Cured-in-Place Sectional Lining</b>							
23	2	EA	Install cured-in-place sectional pipe liners, 8-inch diameter (up to 6 feet in length, all depths)	\$ 1,800.00	\$ 3,600.00	\$ 2,792.00	\$ 5,584.00
24	12	LF	Install cured-in-place sectional pipe liners, 8-inch diameter (per linear foot beyond 6 feet in length, all depths)	\$ 200.00	\$ 2,400.00	\$ 140.00	\$ 1,680.00
25	2	EA	Install cured-in-place sectional pipe liners, 10-inch diameter (up to 6 feet in length, all depths)	\$ 2,100.00	\$ 4,200.00	\$ 2,792.00	\$ 5,584.00
26	12	LF	Install cured-in-place sectional pipe liners, 10-inch diameter (per linear foot beyond 6 feet in length, all depths)	\$ 240.00	\$ 2,880.00	\$ 140.00	\$ 1,680.00
27	2	EA	Install cured-in-place sectional pipe liners, 12-inch diameter (up to 6 feet in length, all depths)	\$ 2,400.00	\$ 4,800.00	\$ 2,792.00	\$ 5,584.00
28	12	LF	Install cured-in-place sectional pipe liners, 12-inch diameter (per linear foot beyond 6 feet in length, all depths)	\$ 300.00	\$ 3,600.00	\$ 140.00	\$ 1,680.00
29	2	EA	Install cured-in-place sectional pipe liners, 15-inch diameter (up to 6 feet in length, all depths)	\$ 2,700.00	\$ 5,400.00	\$ 3,350.00	\$ 6,700.00
30	12	LF	Install cured-in-place sectional pipe liners, 15-inch diameter (per linear foot beyond 6 feet in length, all depths)	\$ 330.00	\$ 3,960.00	\$ 218.00	\$ 2,616.00
31	2	EA	Install cured-in-place sectional pipe liners, 18-inch diameter (up to 6 feet in length, all depths)	\$ 3,000.00	\$ 6,000.00	\$ 3,910.00	\$ 7,820.00

Item #	Qty	Unit	Description	Ric-Man Construction Florida, Inc. 3100 SW 15 St Deerfield Beach, FL 33442		Instituform Technologies, Inc. 17988 Edison Avenue Chesterfield, MO 63005	
				Unit Price	Total Price	Unit Price	Total Price
32	12	LF	Install cured-in-place sectional pipe liners, 18-inch diameter (per linear foot beyond 6 feet in length, all depths)	\$ 360.00	\$ 4,320.00	\$ 246.00	\$ 2,952.00
33	2	EA	Install cured-in-place sectional pipe liners, 21-inch diameter (up to 6 feet in length, all depths)	\$ 3,300.00	\$ 6,600.00	\$ 4,465.00	\$ 8,930.00
34	12	LF	Install cured-in-place sectional pipe liners, 21-inch diameter (per linear foot beyond 6 feet in length, all depths)	\$ 425.00	\$ 5,100.00	\$ 274.00	\$ 3,288.00
35	2	EA	Install cured-in-place sectional pipe liners, 24-inch diameter (up to 6 feet in length, all depths)	\$ 3,600.00	\$ 7,200.00	\$ 5,025.00	\$ 10,050.00
36	12	LF	Install cured-in-place sectional pipe liners, 24-inch diameter (per linear foot beyond 6 feet in length, all depths)	\$ 480.00	\$ 5,760.00	\$ 300.00	\$ 3,600.00
37	2	EA	Install cured-in-place sectional pipe liners, 30-inch diameter (up to 6 feet in length, all depths)	\$ 4,800.00	\$ 9,600.00	\$ 5,585.00	\$ 11,170.00
38	12	LF	Install cured-in-place sectional pipe liners, 30-inch diameter (per linear foot beyond 6 feet in length, all depths)	\$ 540.00	\$ 6,480.00	\$ 330.00	\$ 3,960.00
39	2	EA	Install cured-in-place sectional pipe liners, 36-inch diameter (up to 6 feet in length, all depths)	\$ 6,000.00	\$ 12,000.00	\$ 7,260.00	\$ 14,520.00
40	12	LF	Install cured-in-place sectional pipe liners, 36-inch diameter (per linear foot beyond 6 feet in length, all depths)	\$ 600.00	\$ 7,200.00	\$ 357.00	\$ 4,284.00
41	10	EA	Work in rear-yard easement (items 23 through 40)	\$ 120.00	\$ 1,200.00	\$ 503.00	\$ 5,030.00
42-46			Removed				
Cured-in-Place Lateral Lining							
47	25	EA	Install cured-in-place liner, 4-inch and 6-inch laterals (0 to 8 feet in depth, includes 25 feet of lateral and mainline/lateral connection repair system)	\$ 4,300.00	\$ 107,500.00	\$ 4,020.00	\$ 100,500.00
48	125	LF	Install cured-in-place liner, 4-inch and 6-inch laterals (0 to 8 feet in depth, per linear foot beyond 25 feet of lateral)	\$ 50.00	\$ 6,250.00	\$ 45.00	\$ 5,625.00
49	17	EA	Install cured-in-place liner, 4-inch and 6-inch laterals (8 to 12 feet in depth, includes 25 feet of lateral and mainline/lateral connection repair system)	\$ 4,400.00	\$ 74,800.00	\$ 4,020.00	\$ 68,340.00
50	85	LF	Install cured-in-place liner, 4-inch and 6-inch laterals (8 to 12 feet in depth, per linear foot beyond 25 feet of lateral)	\$ 50.00	\$ 4,250.00	\$ 45.00	\$ 3,825.00



Item #	Qty	Unit	Description	Ric-Man Construction Florida, Inc. 3100 SW 15 St Deerfield Beach, FL 33442		Instituform Technologies, Inc. 17988 Edison Avenue Chesterfield, MO 63005	
				Unit Price	Total Price	Unit Price	Total Price
51	5	EA	Install cured-in-place liner, 4-inch and 6-inch laterals (12 to 16 feet in depth, includes 25 feet of lateral and mainline/lateral connection repair system)	\$ 4,300.00	\$ 21,500.00	\$ 4,020.00	\$ 20,100.00
52	25	LF	Install cured-in-place liner, 4-inch and 6-inch laterals (12 to 16 feet in depth, per linear foot beyond 25 feet of lateral)	\$ 50.00	\$ 1,250.00	\$ 45.00	\$ 1,125.00
53	5	EA	One piece main and lateral cured-in-place liner extending into the lateral 3 feet, in 8-inch and 10-inch mains with 4-inch to 6-inch laterals (0 to 8 feet in depth)	\$ 4,800.00	\$ 24,000.00	\$ 2,095.00	\$ 10,475.00
54	5	EA	One piece main and lateral cured-in-place liner extending into the lateral 3 feet, in 8-inch and 10-inch mains with 4-inch to 6-inch laterals (greater than 8 feet in depth)	\$ 4,800.00	\$ 24,000.00	\$ 3,240.00	\$ 16,200.00
55	5	EA	One piece main and lateral cured-in-place liner extending into the lateral 3 feet, in 12-inch and 15-inch mains with 4-inch to 6-inch laterals (0 to 8 feet in depth)	\$ 5,400.00	\$ 27,000.00	\$ 2,625.00	\$ 13,125.00
56	5	EA	One piece main and lateral cured-in-place liner extending into the lateral 3 feet, in 12-inch and 15-inch mains with 4-inch to 6-inch laterals (greater than 8 feet in depth)	\$ 5,400.00	\$ 27,000.00	\$ 3,575.00	\$ 17,875.00
57	5	EA	One piece main and lateral cured-in-place liner extending into the lateral 3 feet, in 18-inch to 24-inch mains with 4-inch to 6-inch laterals (0 to 8 feet in depth)	\$ 6,000.00	\$ 30,000.00	\$ 3,295.00	\$ 16,475.00
58	5	EA	One piece main and lateral cured-in-place liner extending into the lateral 3 feet, in 18-inch to 24-inch mains with 4-inch to 6-inch laterals (greater than 8 feet in depth)	\$ 6,000.00	\$ 30,000.00	\$ 3,910.00	\$ 19,550.00
59	25	LF	One piece main and lateral cured-in-place liner extending beyond 3 feet into the lateral, in mains with 4-inch to 6-inch laterals (all depths)	\$ 120.00	\$ 3,000.00	\$ 61.00	\$ 1,525.00
60	1	EA	Transitional liner 6-inch to 4-inch	\$ 350.00	\$ 350.00	\$ 390.00	\$ 390.00
61	10	EA	Work in rear-yard easement (items 47 through 60)	\$ 1,200.00	\$ 12,000.00	\$ 1,117.00	\$ 11,170.00
62	30	EA	Reinstate laterals and grout annular space	\$ 540.00	\$ 16,200.00	\$ 400.00	\$ 12,000.00
<b>CHEMICAL GROUTING</b>							
<b>Test Joints</b>							
63	50	EA	Test joints, 8-inch gravity pipe	\$ 42.00	\$ 2,100.00	\$ 40.60	\$ 2,030.00
64	50	EA	Test joints, 10-inch gravity pipe	\$ 42.00	\$ 2,100.00	\$ 40.60	\$ 2,030.00
65	50	EA	Test joints, 12-inch gravity pipe	\$ 50.00	\$ 2,500.00	\$ 48.50	\$ 2,425.00
66	50	EA	Test joints, 15-inch gravity pipe	\$ 50.00	\$ 2,500.00	\$ 48.50	\$ 2,425.00
67	50	EA	Test joints, 18-inch gravity pipe	\$ 60.00	\$ 3,000.00	\$ 54.20	\$ 2,710.00



Item #	Qty	Unit	Description	Ric-Man Construction Florida, Inc. 3100 SW 15 St Deerfield Beach, FL 33442		Instituform Technologies, Inc. 17988 Edison Avenue Chesterfield, MO 63005	
				Unit Price	Total Price	Unit Price	Total Price
68	50	EA	Test joints, 21-inch gravity pipe	\$ 72.00	\$ 3,600.00	\$ 54.20	\$ 2,710.00
69	50	EA	Test joints, 24-inch gravity pipe	\$ 85.00	\$ 4,250.00	\$ 61.00	\$ 3,050.00
70	50	EA	Test joints, 30-inch gravity pipe	\$ 96.00	\$ 4,800.00	\$ 61.00	\$ 3,050.00
71	50	EA	Test joints, 36-inch gravity pipe	\$ 120.00	\$ 6,000.00	\$ 67.70	\$ 3,385.00
<b>Test and Seal Joints</b>							
72	50	EA	Test and seal joints, 8-inch gravity pipe	\$ 150.00	\$ 7,500.00	\$ 22.30	\$ 1,115.00
73	50	EA	Test and seal joints, 10-inch gravity pipe	\$ 150.00	\$ 7,500.00	\$ 22.30	\$ 1,115.00
74	50	EA	Test and seal joints, 12-inch gravity pipe	\$ 180.00	\$ 9,000.00	\$ 28.00	\$ 1,400.00
75	50	EA	Test and seal joints, 15-inch gravity pipe	\$ 210.00	\$ 10,500.00	\$ 28.00	\$ 1,400.00
76	50	EA	Test and seal joints, 18-inch gravity pipe	\$ 210.00	\$ 10,500.00	\$ 33.50	\$ 1,675.00
77	50	EA	Test and seal joints, 21-inch gravity pipe	\$ 300.00	\$ 15,000.00	\$ 33.50	\$ 1,675.00
78	50	EA	Test and seal joints, 24-inch gravity pipe	\$ 400.00	\$ 20,000.00	\$ 39.00	\$ 1,950.00
79	50	EA	Test and seal joints, 30-inch gravity pipe	\$ 425.00	\$ 21,250.00	\$ 39.00	\$ 1,950.00
80	50	EA	Test and seal joints, 36-inch gravity pipe	\$ 482.00	\$ 24,100.00	\$ 45.00	\$ 2,250.00
81	5	EA	Work in rear-yard easement (items 63 through 80)	\$ 120.00	\$ 600.00	\$ 250.00	\$ 1,250.00
<b>Mechanical Removal</b>							
82	800	LF	Mechanical grease removal (8-inch)	\$ 2.50	\$ 2,000.00	\$ 3.40	\$ 2,720.00
83	800	LF	Mechanical grease removal (10-inch)	\$ 3.00	\$ 2,400.00	\$ 3.40	\$ 2,720.00
84	120	LF	Mechanical grease removal (12-inch)	\$ 3.50	\$ 420.00	\$ 4.50	\$ 540.00
85	120	LF	Mechanical grease removal (15-inch)	\$ 3.50	\$ 420.00	\$ 4.50	\$ 540.00
86	120	LF	Mechanical grease removal (18-inch)	\$ 3.50	\$ 420.00	\$ 5.60	\$ 672.00
87	300	LF	Mechanical grease removal (21-inch)	\$ 3.50	\$ 1,050.00	\$ 5.60	\$ 1,680.00
88	120	LF	Mechanical grease removal (24-inch)	\$ 3.50	\$ 420.00	\$ 7.80	\$ 936.00
89	120	LF	Mechanical grease removal (30-inch)	\$ 5.00	\$ 600.00	\$ 11.20	\$ 1,344.00
90	300	LF	Mechanical grease removal (36-inch)	\$ 5.00	\$ 1,500.00	\$ 13.40	\$ 4,020.00
91	400	LF	Mechanical tuberculation removal (8-inch)	\$ 12.00	\$ 4,800.00	\$ 10.10	\$ 4,040.00
92	400	LF	Mechanical tuberculation removal (10-inch)	\$ 12.00	\$ 4,800.00	\$ 10.10	\$ 4,040.00
93	60	LF	Mechanical tuberculation removal (12-inch)	\$ 15.00	\$ 900.00	\$ 13.40	\$ 804.00
94	60	LF	Mechanical tuberculation removal (15-inch)	\$ 15.00	\$ 900.00	\$ 13.40	\$ 804.00
95	60	LF	Mechanical tuberculation removal (18-inch)	\$ 18.00	\$ 1,080.00	\$ 13.40	\$ 804.00